

**GUIDING A SENSOR USING A BROADLY-CURVED LATERAL
PROFILE**

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Abstract of the Disclosure

Problems inherent in guiding a sensor via a piecewise-linear lateral parametric profile are generally avoided using at least one broadly curved, generally lateral profile (494). A sensor is configured to move in a nominally longitudinal direction relative to a frame of reference (110). A position scale is defined in a generally lateral direction relative to the longitudinal motion (115). Each broadly curved lateral profile is defined in terms of its corresponding position scale, the scale(s) and the profile(s) both being part of a parametric model that is available for use in guiding the sensor (145).

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